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THE LOGIC AND METAPHYSICS OF OCCAM.

THE following paper is concerned with certain aspects of the subject that retain an interest for the present time, especially those that concern the logic of Occam. But the metaphysics of Occam seemed to me too interesting to be neglected. Still, if I deem it advantageous to treat the logical and the metaphysical aspects of Occam's philosophy separately, it will not be possible to do so in rigid and complete separation, because the scholastic philosophy had developed into a logical philosophy, and because in writers of that time metaphysical elements were very far from being extruded from their logical treatments. Thus Occam did not merely develop the existing logic, but combined with it metaphysical theory as to the nature of individuals.

I. OCCAM'S LOGIC.

There is no need for me to give an account of the rise and development of realism, whose ascendancy was coincident with that of the scholastic philosophy. My proper concern is with the reactive and opposing spirit of nominalism, with Occam as its head and acknowledged exponent. The question between these two—nominalism and realism—had been raised by a passage in the translation by Boëthius of Porphyry's introduction to the logical writings of Aristotle, wherein were involved the nature of general terms and their relation to individual objects. The universal was to Occam only a common conception made by

mental abstraction from the individual things—*conceptus mentis* signifying *univoce plura singularia*. Nominalism denied the existence of anything but the concrete. The real value of universals was denied by Occam. When, however, Occam is so often spoken of as representing extreme nominalism, it seems worth while to remember that a large strain of realism yet appears to have remained in him and other nominalists—so much indeed that his has sometimes been called pseudo-nominalism—since the analytical power of language was directed by them toward the interpretation of nature. The nominalism of Occam had real affinities, too, with conceptualism. Indeed, there have been thinkers who classed Occam as a conceptualist. If nominalism, as Anselm thought, took the terms expressive of general notions to be merely *flatus vocis*, Occam was far from holding that view. To him universals were assuredly not fictional, not mere sounds. Occam's logic, however, was condemned by the University of Paris in 1339; the date of his death is variously estimated as 1347 and 1349. Nominalism had seemed routed by the scholastic ascendancy and the triumph of realism already referred to, but this was far from what was really to happen. Duns Scotus, who taught at Cologne in 1308, was to assert the reality of the individual soul, in place of the former insistence on the principle of individuality (*principium individuationis*). The view of Duns Scotus, according to Occam, was that "in the thing that exists outside the soul, the same nature exists *realiter* with the difference limiting it to a determinate individual, being only formally distinguished, and in itself neither universal nor individual, but incompletely universal in the thing, and completely universal in the understanding." And Occam was, in somewhat extreme nominalism, to declare for individuals as the alone real (*sufficiunt singularia et ita tales res universales omnino frustra ponuntur*). In doing so, he was pointing the way to real science

(*scientia est de rebus singularibus*), through immediate apprehension of the actual world. Says Occam, "Nothing which is one in number can, without being charged or multiplied, be present in several subjects or individuals. Science invariably restricts itself to propositions regarding the known; it is, therefore, a matter of no moment whether the terms of the propositions are known things outside the soul, or only in the soul; and therefore it is not necessary for the sake of science to assume universal things, really distinct from individual things."¹ From another side, however, it has been urged that nominalism was skeptical of science; that it emphasized the individual, the particular, whereas science aims at the universal and the necessary. It would thus be a mass of individuals, lacking all law and order, and science would be impossible. It seems to me there are elements of truth, not difficult to reconcile, in both contentions. For with empiric observation of individual things, there must be conjoined the derivation of universal principles from the *inductive and deductive processes of our mental experience*. But nominalism was apt to contradict its own principles.

The revival and spread of nominalism in the fourteenth century was what might have been expected to follow a purely logical philosophy, and the results were big for science, too much neglected since the days of Roger Bacon, and of Albertus Magnus, who deserves far more scientific credit than he almost ever gets.² Occam relegated the universal to psychology and logic, and banned it in metaphysics. His main line of argumentation was "that the universal is not something real that has explicit subjectivity—neither in the soul nor in the thing. It is something conceived, which, however, has objective reality in the soul, while the external thing has this objective reality as an ex-

¹ Hegel's *History of Philosophy*, Vol. III, p. 84.

² Cf. my article in *Hibbert Journal*, July, 1918.

plicitly existent subject. This comes to pass in the following manner. The understanding, which perceives a thing outside the soul, forms the mental image of a similar thing, so that, if it had productive power, it would, like an artist, exhibit it in an absolutely existing subject, as numerically an individual distinct from any preceding. "Should any one be displeased," Occam continues, "by this manner of speaking of the mental image as being *formed*, it may be said that the mental image and every universal conception is a quality existing subjectively in the mind, which by its nature is the sign of the thing, arbitrarily instituted for marking out that thing."⁸ In such medieval connections it has, of course, to be remembered that the meanings of the terms "subjective" and "objective" were the reverse of what they are at the present day. The theory, described in the passage just quoted, led, as already hinted, to the discarding of that principle of individuation, of which the scholastic philosophers made so much. I do not dwell on this, as the subject will come up later. But I note it was a merit in Occam to have removed nominalism from the region of theological grounds, and to have maintained it as a philosophical question. It was, however, an exaggeration for Cousin to say that, theological matters apart, the whole of philosophy was, for the schoolmen, comprehended in the dispute between nominalism and realism. Nominalism had already existed among the Stoics, in their doctrine that universals—so far as common to all men—were established by the understanding or the universal reason. This was the outcome of their theory of preconceptions, which were held to be established by the activity of thought or the mind. Such was the point of departure of nominalism, in this Stoic denial of objective reality to universal concepts. Among the precursors of Occam's "terminism" was Durandus de St. Pourçain, who, though he lacked

⁸ Hegel, *op. cit.*, pp. 84-85.

unifying and synthesizing power, denied the reality of universals, the real distinction between essence and existence, the existence of intelligible species, and maintained our incapability of real knowledge of God. Hamilton calls particular attention to the fact that the doctrine of species was denied by Durandus, and that Occam and Biel were early claimed to be in agreement with him on the point.⁴ It was the character of nominalism, empiricwise, to proceed from particulars up to universals, to be more critical and disintegrative than constructive. This lack of initial constructive reason bred difficulties for nominalism, which came at length in its more scientific forms, like the nominalism of Occam, to feel the need of appeal to authority whereon to rest. That need was the germ of decay for scholasticism. Duns Scotus had occupied a more speculative position; to him, it might be said, the rational was the real. He was more rationalist even than Aquinas; for the realism of Duns Scotus (as Platonic) held universals to be real and before things, while the realism of Aquinas (as Aristotelian) held them to be in things, that is, as their ordering and unifying spirit. When nominalism gained sway, truth could no longer be sought by developing the contents of reason simply: appeal must be made to the facts of nature and the realm of inner experience. If this meant an opening for skepticism, it also meant the opportunity for more vital modes of thought and belief. It is time to note that logic has been at different times treated exclusively in nominalist, in conceptualist and in realist terms; and that it has some concern with all these three—with language, thought and things. Dr. Venn has spoken of "the triple correspondence" between these three elements. The thought side, however, is the most central for the thinking subject, whose mental activities are therein

⁴ *Metaphysics*, Vol. II, pp. 36-37.

regulated, since it carries its own logic inherently within itself.

The great work of Occam, *Summa Totius Logicae*, was one of severe precision and strict orderliness; by means of divisions, subdivisions, re-subdivisions, positings, demonstrations and solutions of objections, the work was carried out in massive form, not without affectation of mathematical order. Occam is free of the tendency to digression sometimes characteristic of logicians of that time, not least of his redoubtable opponent Wyclif, who, however, was no whit behind Occam in subtlety and originality. Lotze says of that period that "traditional custom directed attention almost exclusively to the concept, the most unproductive of the forms of thought; diverting it from the consideration of the judgment and the syllogism."⁵ This is rather loose and vague, even if correct, i. e., even though we grant the tendency to treat essential concepts too often as distinct entities. It is more exact and helpful to say that Boëthius had proposed to use concepts and maxims for the upbuilding of science, as was practised in mathematics; that Anselm had put forward an *ensemble* of theorems relative to the Divine attributes and their *rapports* with the world; that Scotus Erigena had represented the purely deductive type; that logic had become, in the hands of the Arabian philosophers, the science of argumentation; that to Albertus Magnus, in the thirteenth century, it meant the syllogism, with consideration of induction (*inductio est a singularibus in universalibus progressio*); that to Duns Scotus in the fourteenth it was the science of the syllogism; and that the dry syllogistic form of argumentation was no less followed by Occam, with not a little importance, consistently or not, still attaching to abstract notions. These thinkers, to whom the syllogism was a didactic procedure of the first order, would, I fear, scarcely have appreciated

⁵ *Mikrokosmos*, Vol. II, p. 338.

the statement that "a trained logician may be a very poor reasoner, and a very good reasoner may know nothing of logical science."⁶ That does not keep logic from being an aid to correct thinking, and the improvement of the discriminative powers.

The universal in Occam's *Logic* is sometimes real outside the mind or soul that knows it.⁷ The universal is particular in our individual mind, but universal in the sense that it is a sign of things many. Universality, the *Logic* affirms, is nothing but a quality of certain concepts (*quod quodlibet universale est una res singularis et ideo non est universale nisi per significationem, quia est signum plurimum*). But Occam was a startling innovator in his theory of knowledge, and his positions, as set forth in the *Logic*, must be taken account of. Occam, whose psychology we must allow to be somewhat involved here, rejected the *species intelligibiles* of Aquinas and Duns Scotus, for to him this would have meant a needless and unjustifiable doubling of the object or the external reality. This latter, as an object of knowledge, would, he thought, be assumed to have another existence—that of being psychically real. The idea or the concept merely forms a *sign* of the thing that corresponds to it. The sign, says Occam in the *Logic*, is that the knowledge of which brings us to the knowledge of another thing (*quod apprehensum aliquid aliud in cognitionem facit venire*). But the sign is not, in Occam's view, a copy of it. For the inner formation or structure is, to him, different in nature from the outer reality—of which it is *sign*, but not copy. The signs are arbitrary symbols, words, says the *Logic*. Things were, to Occam, other than our ideas of them. But the mind cannot think of the individual thing without thinking of a class to which it belongs.

⁶ A. Rashdall, *Theory of Good and Evil*, Vol. II, p. 419.

⁷ Yet his conceptualist leanings appear in calling the universal an intention of the mind (*intentio animae*) in the *Logic* (I, c. 15).

Occam thus emphasizes the part played by the mind itself in knowledge. The "terminism" of Occam, which was bred of a reaction against the formalism of Duns Scotus, thus laid a certain foundation for an idealism of psychological and epistemological character, whatever we may think of it. Although Duns Scotus had been so largely charged with realistic elements, yet his insistences on individual experience called for a theory of knowledge like that which was advocated by Occam. This, however, has not gone without much criticism from realist philosophers. It is too often forgotten that, in his opposition to the doctrine of "species" as an *intermediary* between the object and the knowing subject, Occam had a precursor in Roger Bacon, who stood for direct knowledge. For him, the universal is a specific essence realized *tota et totaliter* in each of the individuals of a like "species."

It must be remembered, too, that Scotus Erigena, influenced by neo-Platonic realism, had found truth and being in the universal; so that the universal, that is to say, the class-concept or logical genus, had figured as the original and essential reality. By or through the universal, accordingly, the particular was to be understood, and from it was to be derived. *Universale in essendo*, said Avicenna and other Arabian philosophers. Universals thus came to be treated as substances (*res* giving rise to "realism"). The universals were not only held to be substances, but were considered the more real the more universal they were. It was in this realist atmosphere that Anselm fittingly produced his argument for God as the most real, because the most universal, Being. Aquinas, too, held the general or universal Being to be our first datum, yet he did not hold the Platonic independent existence of universals, but, Aristotelianwise, to the necessity of active and abstractive intellect. The first place was assigned by Duns Scotus to the single entity or particular object, from which the uni-

versal is abstracted. But the individual of Duns Scotus was constituted of the principle of the universal (*quidditas*) and the principle of individual difference (*haecceitas*). Their union in the individual made reality for him. Occam's leanings were with the Scotist contention, and he laid his stress on particulars. The universal was, to him, what had to be explained. The precise opposite of this position forms the logical difficulty to-day for some writers, who say the difficulty "that presents itself to logic is not in universals, for *all* logical entities seem to be universals, but in particulars. Can logic define a particular entity?"⁸ Not that Occam denied the likenesses to be found in particulars, or that the likenesses are real, though abstracted from the particulars. He thus did not deny any and every sort of objectivity to universals, as we have already seen from the *Logic*. The universal is an intention of the mind (*intentio mentis*), the *Logic* says. Its character is conceptual (as an object), that is to say, not substantial. Occam significantly argues in the *Logic* that no individual could come into existence if the universal were a substance, because the universal in it would already be real in another. Everything that exists is singular and numerically one, he elsewhere affirms. But still, he does not deny some sort of objective existence—defective as it might be—to universals: he thinks we know them by abstraction or conception. But Occam thought that the self entered into the constitution of universals in a way that did not obtain in the case of the particulars. That is, he inclines to undervaluing the conceptual. But the generic notion, say, of "man," has certainly wider reference in reality—in things themselves—than merely as a thought, idea or concept, in the individual mind. The generic concept was therefore taken by realist contention to have warrant in the nature of reality, and to signify a perfect equality of essence, in spite of the

⁸ E. B. Holt, *The Concept of Consciousness*, p. 43.

diversities found in particular individuals. Not without that essence could the thing be itself, and different from all else. Not without it can you have a true notion of any concrete thing or being. The essence you do not know *per se*, but as it individuates itself, for knowledge is of individual objects. The essence is the "whatness" of the thing, and is a universal, but it is an entity of the logical type. This does not keep the particularist from sometimes disparaging the universal as abstract, and lacking the rich originality of the particular. This is to overlook the real or factual value attaching to the abstract or universal principles, which are not without real basis in the nature of things. Occam's lack is in defining the universal otherwise than in a merely negative way: the particular he defines more satisfactorily, if only by his insistences on numerical difference.⁹ Not that I attach the importance to numerical diversity that Occam did, in defining the particular, and that some have done after him, for here we are but in the region of the existence of the individual, and have not yet penetrated to the nature of the individual object; more than mere existence is required for individuation, as Duns Scotus, in fact, clearly saw. He saw that the *haecceitas* involved something of the nature of "positive entity" or "individual nature," which became fused with the common nature. The individual is not something to be settled in terms of sense-presentation. The finite or individual is, no doubt, "for itself." But so long as you keep to a numerical one, you are shutting out relation, and making the one meaningless. The entity of the individual is something essentially intelligible—not material, and not accidental—for there is idea behind it. The *individuum* involves other individuals, yet it negates them all. The logical individual must be essentially unique: the mere empiric individual of

⁹ Mr. C. Delisle Burns has a paper on "Ockham and 'Universals'" in *Proc. Arist. Soc.*, 1913-14, emphasizing this point.

sense is not enough. The value, however, of Occam's justice to the particular, such as it was, is not to be denied, for the particular is still sometimes treated as somehow deficient in reality. This is because it has not the definite, changeless character of the universal. In such a system as that of Dr. Bosanquet, for example, the finite or particular is interpreted in terms of the cosmic or universal. Still, the fact is to be recognized that Occam postulates also a certain objective reality for universals, though it might not be of an *in rebus* character. His treatment cannot here be developed in detailed form. If Occam did not succeed in reaching full and perfect treatment of the relations subsisting between universals and particulars, we may recall how difficult and disputed the subject still is, and we shall at least find much in his treatment to appreciate, as well as the fact of his striking insistence on its discussion in his time. Feuerbach once declared the relation of the general to the singular—of the species to the individual—to be the most important and the most difficult question in philosophy. This he held to be evidenced by the fact that the whole history of philosophy—the controversies between Stoics and Epicureans, Platonists and Aristotelians, skeptics and dogmatists, in ancient times; between nominalists and realists, in the Middle Ages; and between idealists and realists in modern times—has turned upon it. I have merely sought to indicate the attitude of Occam to the problem, as part of his general system.

One of the questions of greatest concern to logicians of that time was that of insolubles (*de insolubilibus*). The position of Occam on that subject has been stated as follows in the article "Insolubilia" in Baldwin's *Dictionary of Philosophy*: Occam "admits the validity of the argumentation" (whereby propositions were shown to be both true and not) and of "its consequence, which is that there can be no such proposition, and attempts to show by other

arguments that no proposition can assert anything of itself."¹⁰ The article goes on to say: "Many logical writers follow Occam in the first part of his solution, but fail to see the need of the second part." I am myself much inclined to agree with Occam on both counts. With him on the first, because such proposition is not a true proposition, only a pseudo-proposition; for a proposition must be either true or false, not "true and not." The proposition exists, of course, as a form of words; has being, that is to say—the only truth it has—but is not a proposition, for it has no meaning. With what Mr. Russell has said as to "Being," what I have now said is in accord, for he says that "being is that which belongs to every conceivable term, to every possible object of thought—in short, to everything that can possibly occur in any proposition, true or false, and to all such propositions themselves." The position is not new with Mr. Russell's formulation of it, as I have met with it in able but little-known logicians, many years before. But it makes being, I think, the lowest possible category, lower, if possible, even than Hegel thought. And it does certainly not follow that all the propositions which have in this sense being have any sort of logical value or meaning. I am with Occam on the second issue, because a proposition must have meaning or signification, apart from or independent of the proposition itself. The proposition cannot include itself, it is sometimes urged, in its own meaning, and with this I am inclined to agree. Says Dr. Bosanquet in his *Logic*: "It is essential to the judgment to affirm a reality outside itself." Formal logicians like Drs. Venn and Keynes insist on the necessity of objective order of some sort in logic, while Sigwart thinks the assumption of an objective order does not even call for justification. I cannot follow Fries, who is a psychological logician, in holding that every proposition asserts its own

¹⁰ *Summa Tot. Log.*, III, iii, c. 38 and 45.

truth (the truth of itself), but I agree with him that that is no proposition which asserts its own falsity, and that is precisely what the *Dictionary* article assertion does. For Fries psychological basis was sufficient guaranty, and to him transcendental method in logic was superfluous. But he and other German psychologists have not shown why, if there are no universals, we can still think and mean them.

The question of insolubles is, however, a much larger one than might be thought from the *Dictionary* article. They took many forms, often becoming mere dialectical puzzles. One of them, for example, is that given by Occam's great opponent, Wyclif, who devoted much attention to the subject in his highly important treatise, *Tractatus de Logica* (not mentioned in the *Dictionary* article already referred to), edited by M. H. Dziewicki of Cracow. Wyclif supposes a man to have two slaves, A and B. He resolves to free A, if the first man he meets is a slave; to free B, if the first man he meets is a free man. A, happening to meet B, who is a slave, is instantly free; B meeting A as so freed, is also free; the case is logically impossible, argues Wyclif, but is to be legally met by freeing both. Many of the cases in that time easily ran into the absurd and ridiculous, so that the subject came to lose interest. It is not directly referred to in neo-scholastic text-books like those of Liberatore or Tongiorgi, nor in the *Logicae* of Ubaghs. Indeed, the logico-grammatical method of Occam, and the terminists generally, led to results so paradoxical and false as to give rise to natural grounds of complaint against its abuse. The case chosen for illustration in the *Dictionary* article already referred to, "This assertion is not true," is a negative insoluble, and the negative insolubles are particularly difficult. "This assertion is not true," is false, in the sense that it is true, so far only as it has being as a proposition, that is, exists. But if it be

taken as true, then it denies its own meaning. And so the endless round of true and false goes on, the "insoluble" being essentially something in which it is impossible to deny or to affirm. It is, in fact, a pseudo-proposition. The case in question is a proposition only if we hold that every sentence is one; it is merely a pseudo-proposition, if we hold, as I think we must, that a proposition must signify something true or false. But the syllogistic reasonings make this proposition "true and not," so it is not a proposition in the latter, which is the proper, sense. Since it is not a true proposition, what further concern has logic with it? I regard the syllogistic reasonings in the *Dictionary* article as mere interesting word-play, the proposition being no true proposition. They admirably illustrate the non-valuable, unmeaning character of "insolubles," although the article leaves the whole matter in far too indeterminate a condition, as I have shown. You cannot deal with such matters, and make no consideration of the different senses in which the word "true" is employed or understood. Every true proposition has truth for its primary signification, but "true" may be taken in an absolute sense, or it may be limited to mean only "true" as an existing sentence or proposition, or it may mean "true" of what is neither the proposition itself, nor in any way dependent upon it; or it may mean "true" in the sense that the proposition is in agreement with the meaning intended to be put upon it. What I have been saying is something different from the question of so-called degrees of truth, as that problem has been formulated and discussed by writers on symbolic logic.¹¹ But I think there is little in "insolubles" that is worth the concern of modern logicians, and nothing about them that casts any reflection on the real utility of logic, as a mental discipline.

It may be remarked that Gabriel Biel and John Buridan

¹¹ See, e. g., A. T. Shearman, *Symbolic Logic*, pp. 25-26.

were, among immediate followers, particularly able expounders of the logical ideas of Occam, and both metaphysical skeptics, but I have no occasion to discuss their work here. It is more important to note how, in subsequent philosophy, the nominalism of Occam reappears, so that, in an important sense, he heralded the dawn of modern philosophy in England, his discriminating mind and powerful personality marking him out from the other leaders of medieval thought. Then, not to speak of the realism of Bacon, there is Hobbes, whose nominalism found vent in the words: "One universal name is imposed on many things for their *similitude in some quality or other accident*, and whereas a proper name bringeth to mind one thing only, universals recall *any one* of those many." Like Hobbes, La Mettrie and Helvetius stoutly denied the existence of universals, for nominalism was largely supported by materialists. I think it worth noting that Bossuet, in contending with Leibniz, took the interesting position that the universal is not—so his attitude has by a French writer been expressed—"that which comprises all, but that which extends everywhere, that which, present everywhere, carries with it the ascendancy of strength and unity." Berkeley's notable nominalism thinks "the generality of men" do not pretend to have such "abstract notions." He thinks particular ideas may, from "mutual resemblance," belong to the same kind, without the need of "any abstract general idea." Hume, too, laid great stress on perceived resemblance, and assailed the reality of universals just as the terminism of Occam had done. For Hume a genuine universal did not exist, either *mentaliter* or *realiter*. His influence on Kant is well known. The nominalist position was upheld by Stewart and Hamilton, the former repeating the perceived resemblance tradition with all faithfulness. What they all deny is, that this conception of similarity could really constitute a general notion. In Hegel, there is em-

phasis on the fact that the universal is *actual* only as individual. That is to say, the species exists only in individuals, each of whom represents the whole species. In this way, the individual is the universal. Particularity is thus *determinate* universality. Lotze was a nominalist, denying the objective reality of the *genus* idea, to him universals have no real existence in things themselves. Rosmini, on the other hand, who says he has never had a thought of becoming a nominalist, holds that nominalism is a system which sterilizes humanity. His discussion is very suggestive; he thinks that, in a universal idea, there is the quality thought of, to which there is corresponding reality in external individual things; and the universality of that quality exists for him in the mind only. But enough has now been said of the subject.

II. OCCAM'S METAPHYSICS.

Some of the aspects which we have had to consider under the logical section, those of realism for example, one might have wished to include rather under the present section, as pertaining to ontology. But to-day we relegate them rather to epistemology, and Occam's epistemology we have already considered. What concerns me, however, is Occam's metaphysics proper. The arguments whereby rational theology had been wont to prove the existence of God were rejected by Occam, who left men faith here, not demonstration. In this Occam had the merit to anticipate Kant, but he fell back on bare authority, instead of on the practical reason, as did Kant. Neither the ontological nor the cosmological argument appealed to him. In fact, none of the truths of theology were to him capable of philosophical proof. The existence of a First Cause he regarded as a purely hypothetical necessity. He upheld the argument of Duns Scotus as to the impossibility of an infinite chain of causes, but Occam was distinctive in laying more stress

on the question of conservation than of production. "It would seem," said Occam, "that the priority of the efficient cause can be proved with more evidence with respect to the conservation of a thing by its cause than with respect to its production thereby." In this Occam had the merit to anticipate Descartes in the latter's third "Meditation." Occam said if a cause creates a thing, it can only create it a particular individual. He remained undecided whether, as a somewhat radical nominalist, to deny only the universal—equal constituents or sides of things—or the causal connection, changes of effect, between finite things, also. Yet the Ground of all things, unified, all-embracing, lies in God, whom the causal connection in whole presupposes. But if a rational or scientific theology can be thought to be grounded in Him, Occam for his part denied it any foothold within the circle of experience, and, as transcending such experience as obtains in the case of other individual beings, it is assigned by him to faith. This shattering the bridge between the particulars of sensible experience and God, as ultimate ground of all existence, was a most serious attitude for Occam and the nominalists to assume, for it shut off from view the reasonableness of what was to be believed, and yet thought to sustain the reasonableness of believing. Nominalism made religion something other than knowledge and philosophy, however, and by its emphasis on the significance of the concrete, it laid a new foundation for psychology.

We have thus seen that, in the view of Occam, speculation in general does not engage in the inquiry of God.¹² Occam thought, that is to say, that, apart from direct revelation, to which in fact his positivism led him, it was beyond the province of man to know what God is—His unity, and His infinitude. All this, however, did not mean that Occam, who was critic by nature, was either hostile or indifferent

¹² So his *Centilogium theologicum*.

to the Church, for he was neither. Luther, we know, praised Occam as the most ingenious of the schoolmen, and derived from him his conception of the Eucharist. Only in metaphysics was Occam skeptic; he was much less moralist and rationalist than might appear; in his religious philosophy, he *believed* because he thought we could not know. Occam's position was that science has only to do with phenomena which it observes, and that what lies beyond this is the object of belief alone. Duns Scotus had taken up a like position as to the separation, and even opposition, of faith and knowledge. Dr. Seeberg has termed Occam "a fanatic of logic," in the hairsplitting scholastic connection. But Occam's appeal, for all that, was to experience, and away from the prevailing abstractions of philosophy. And, although we are not concerned with that here, I may remark that it was a thing of great significance for the future that, in fixing the limits of theology as he did, Occam was acting in order to the independence of the sciences, of logic, of the science of language, of jurisprudence and of the State. For he certainly wielded the sword of a free spirit, alike in his teachings and in his life.

It must be noted that Occam denied all real distinction between essence or "whatness," and the existence or "thatness," although it could be, and was, very ingeniously presented: "Existencia et essentia idem omnino significat," he says. A real distinction between them had been held by Aquinas, Albertus Magnus and others, while the distinction was treated as not real, but merely virtual, by Alexander of Hales, Durandus, Biel, and later Suarez. Duns Scotus did not treat the distinction between essence and existence as a real one, nor yet a virtual one, but regarded it rather as *formalis*, of the kind between a reality and its intrinsic modes. These divergent views, despite the difficulty of reaching satisfactory clearness in respect of them, seem at

least to testify to the desire of medieval thought to attain insight into the nature of reality.

The will is, for Occam, the essence of the soul, and he is a thoroughgoing voluntarist, as Duns Scotus also was. "Eo ipso quod voluntas divina hoc vult, ratio recta dictat quod est volendum." The absolute self-determination of the will is maintained by the critical and skeptical Occam, just as Duns Scotus had maintained that the will determines itself. Occam, however, fails to distinguish between the free act and spontaneous action. All variation in the degree of freedom is to him impossible. He renders the primacy of will over knowledge void of meaning. Freedom in God is to him that of His being arbitrary sovereign of good and evil, which is unsatisfactory enough. In so maintaining, after Duns Scotus, that the Divine Will—like the human will—is independent of reason, and that the Divine ordering of the world is purely arbitrary, Occam strangely failed to see that his position was inimical to all reasoned morality. It was on this conception of Almighty arbitrariness that Occam's positivism was finally based. Occam also erred in thinking things intrinsically possible, because God can create them, instead of regarding His power to create them as due to their being intrinsically possible. But he did not err when, in the *Logic*, he offered a *Deus non posset* to making a contradiction in terms valid.

I now turn to the metaphysical concept of substance. It is easy to see that Occam's conception of substance is one that relates only to reality accessible to the understanding, and not to incomprehensible truths of revelation. It naturally thus refers only to finite substances. He says that a cause, in creating a thing, creates it only as a particular individual. For Occam, the individual is the true substance, of which there is intuitive knowledge (*nihil potest naturaliter cognosci in se, nisi cognoscatur intuitive*): the universal takes its independent form from intellectual trav-

ail. A German writer has asserted that Occam's philosophy always founders in subjectivism. That is clearly not the case. Intuitive knowledge, with Occam, always attains to what is really extra-mental (*res extra animam*): it is only the abstract concept which is shorn of connection with the things themselves. Subjectivism may be applicable to abuse of Occam's doctrine, but not to that doctrine itself; Occam distinguishes the particular from the universal by the fact that it is a substance. No universal is a substance, says Occam in the *Logic*. A *suppositum* or "hypostasis" has been used to mean a substance, complete as such, the idea of which has sometimes been spoken of as presupposing a *substratum*. By Occam the term *suppositum* is used in a different sense or meaning from that in which it had been employed by Aquinas. Thomist doctrine took the "hypostasis"—called personality in intelligent beings—to be something real, superadded to the substance, a doctrine opposed by Duns Scotus. Substance and hypostasis had been earlier distinguished as universal and particular. A person is an intelligent *suppositum*, but, as the *suppositum* must have a nature such that it forms a whole by and for itself, *supposita* may include other organisms than man. There is for Occam, however, no real universal besides the particular, not even in things, consequently there is for him no concept of being. So it is said in his *Logic*.¹³ There can therefore be for Occam no substrate in things, from which a receptive being is to be distinguished. Occam uses the term *suppositum* after the sense of the terminology of what was considered the modern logic of that time, namely, to express that for which a word or a concept comes to stand as a *sign*. Though a term be so used as a *sign* for that which it means, the *sign* is different from the thing itself. But this significant use of the word no longer involves direct reference to the thing itself,

¹³ *Summa Tot. Log.*, c. 16.

but primarily to its idea. This was part of the "terminism" which, as we have already seen, Occam developed.

Some notice may here be taken of the form of words called "Occam's Razor" for getting rid of superfluous entities—"Entia non sunt multiplicanda praeter necessitatem." This principle we have already seen at work in Occam's rejection of "intelligibiles species" as needless, and in his rejection of the distinction between essence and existence. In *Mind* (July, 1918), W. M. Thorburn noted that in nearly every modern book on logic the words quoted are given as those of Occam, but this is done without any reference ever being given to any particular work of his. He is, after search, skeptical of Occam's propriety in the phrase. The Law of Parsimony was used by Duns Scotus and Occam in certain variant forms, but Mr. Thorburn does not believe the current formula was known to Occam. He appends some quotations of the Law of Parsimony in its variant forms, one of these being "Frustra fit per plura, quod potest fieri per pauciora"—a form found in the *Summa Tot. Log.* of Occam and elsewhere. Another form of the terminists was: "Non est ponenda pluralitas sine necessitate," to which Turner's history gives a reference in Occam.¹⁴ I shall now add another to Mr. Thorburn's list, taken from the Latin works of Wyclif. It occurs in his work "De Actibus Anime," edited by M. H. Dziewicki of Cracow, in a volume entitled *Miscellanea Philosophica* of Wyclif. It occurs on page 119 and runs thus: "Quando-cunque natura potest cum paucioribus mediis in finem aliquem non multiplicat plura," etc. The editor gives reasons for saying we may "safely assign to this work a date anterior to 1361." I have dealt with "Occam's Razor" under this head only because of its metaphysical associations in general usage, although Mill declared the Law of Parsimony to be "a purely logical precept," which would

¹⁴ In II *Sent.*, Q. XXIV, Q.

rank it with methodology, rather than with metaphysics. Still, the fact must be kept in mind that the knowledge of existence is always, to Occam, intuitive, not conceptual nor abstract; for him the real is individual, not universal. I have thought the matter worth some reference, since the formula, attributed so generally to Occam, is not referred to in works like Eucken's *Geschichte der philosophischen Terminologie*, nor in the Appendices to Harper's *Metaphysics of the School*, nor in the article on "Latin and Scholastic Terminology" in Baldwin's *Dictionary of Philosophy*.

Occam discussed continuity and the infinite indivisibility of space, it may be remarked.¹⁵ A metaphysical feature of nominalism was that it did not hold to the independent existence of space, only to things conceived in space. Space to it was fictional, taken apart from singulars occupying space. The number of existing singulars must, to nominalism, be finite, but the number of possible things might be indefinitely great. And the same thing held true of time. The particular has, of course, relations to space and time, such as are not found in the case of the universal, yet it will be seen, from what has been earlier said, that the particular is not to Occam explicable merely in terms of space and time. Yet space and time were the great individuator to Schopenhauer, a view which requires more explication than he has given to it, before it can be accounted satisfactory.¹⁶ Wundt does something of the same sort of unsatisfactory thing when he, in his logical treatment, makes the individual consist in the *this* of space and time—the *here and now* object. This individuation in space and time, as something which no other object can then and there occupy, does not explain the essential nature of the individual. This has, no doubt, a non-substitutional character,

¹⁵ See "Occam on Continuity," by C. Delisle Burns, *Mind*, Oct., 1916.

¹⁶ *Die Welt als Wille und Vorstellung*, Vol. I, Bk. 2.

but it consists in the essentially unique character of the individual, not in its particular occupancy of space and time. You cannot define individuality by mere spatial character and physical exclusion in such a way. The metaphysics of individuality would take us, ultimately, up to Divine individuating Will and Love, in the cosmic actualizations of Deity. On the other hand, the opponents of nominalism held space as for us real and unlimited, though space must always be filled by something not itself. Its ultimate parts were real indivisible points. So, too, for them time was a mode of being that implied changeable duration, but one that depended on the existence of the world. Its ultimate elements were real indivisible instants. But I have here no call to discuss the question further.

Occam held a form of corporeity and a sensitive soul in man, besides the intellective principle. In these matters he speaks mainly as a follower of Duns Scotus, and the words of Duns Scotus are these: "The substance of the soul is really identical with its faculties; so that while, in relation to body, the soul is its substantial form, it takes the name of different faculties according to its different operations." That is to say, there was no real difference (*sine diversitate reali potentiarum*), however there might be formal or logical distinction, between the faculties and the mind. The soul, "by its own substance," said Duns Scotus, is "at once the efficient cause and the subject, not by any faculty which is really distinct." Occam rejected the theory that the vegetable and sensitive souls (*forma corporis, anima sensitiva*) were identical with the *anima intellectiva* or thinking soul. Occam held, psychologically, to the superiority of intellectual intuition over that of sense. Intellect, he says, is not confined to the knowledge of *sensibilia*, but intuitively knows *intellectibilia*, which do not fall under sense (*nec sub aliquo sensu cadunt*). But such intuition he refers, it should be said, to the states of the

soul, rather than its substance. Our knowledge of the sensible and of the intelligible, thus claimed by Occam, does not, I may remark, involve that there are no conflicts between reason and sense, for these have not even yet been laid, except in too easily satisfied philosophies, even though the gulf between reason and sense was in a measure bridged so early as Plato.¹⁷

As to immortality, Occam shared the doubts of Duns Scotus as to the immortality of the soul being demonstrable by human reason; only faith could apprehend it with certitude.¹⁸ It is, of course, a purely negative attitude, one which does not take account of positive arguments for immortality. But a still more negative and skeptical attitude was assumed by that latest of schoolmen, Pomponazzi, who, while arguing for the soul's mortality, in his work *De Immortalitate Animae*, went beyond his immediate scholastic predecessors in making virtue an end in itself, in anticipation of Kant. I mention Pomponazzi only because, in the controversial storm which he brought upon himself, he took refuge, like Occam, in the distinction to be drawn between science and belief.

In concluding this paper, I may observe that its importance lies in its belonging to the historical approach to the questions with which it is concerned. From the issues of nominalism and realism onward, we have seen that they concern problems that are with us to-day and in respect of which we owe greatly to thinkers like Occam. We are still discussing essence, or, as it is now called, "meaning"—where Occam and the scholastics generally spoke of essence or quiddity—whether it stands for an existent or represents the character of an object. They spoke of essence in the wider sense of including being in general, not simply the specific nature of a particular object. And of

¹⁷ J. Burnet, *Greek Philosophy*, p. 349.

¹⁸ *Quodl.*, I, 10.

existence, philosophers are chiefly anxious to-day to say that it is value. But our appreciation of value must not land us in any depreciation of reality. Again, in respect of the seeming arbitrariness of the logico-grammatical method of Occam and the terminists, we have to remember that, in the dependence of thought upon language, language was formed long before mental processes were interpreted by psychology. James has said that "philosophy has always turned on grammatical particles." Even yet we recognize how little conceptual thought can have its development carried through without the aid of language, especially through the formation of general concepts. The concept is conserved, grows fixed and definite, by means of the specific verbal symbol; words being, as Hamilton said, the *fortresses* of thought, even if the fixity and definiteness should remain—and desirably so in a developing order of things—no more than approximate. And this elaboration of concepts proceeds as we now recognize, through processes of attention, comparison, analysis and generalization, until universal ideas are reached.

The nominalism of Occam's time is, under restatement, now represented in the tendencies of modern empiricism, and the realism which he opposed is represented, more broadly, by modern epistemological realism. But realism has always had the object of knowledge for its concern, and is to-day mainly occupied with emphasizing the completeness of the object, without the knowledge of it. But the reality of the universal is the maintenance of realism, though we hear less of it. The empiricism, which, I have said, now represents the nominalism of Occam's time, is illustrated in Bain's denial of abstract conceptions and universal relations. Bain missed the essential meaning of abstraction, and was pretty well refuted within his own school by Lewes. Said Lewes, "In every science the concrete real is stripped of all its qualities except those which

the science needs for its construction." "The substitution of an ideal object for a sensible object, an abstract for a concrete, is the substitution of a general for a particular relation."¹⁹ "To the geometer a circle is not the round figure visible by his eye, but a figure visible by his mind, in which all the radii from the center are absolutely equal, it is not this particular sensible circle, it is the ideal circle."²⁰ Later, in the same volume, he says, "The objects of mathematical study are reals, in the same degree as that in which the objects of any other science are reals. Although they are abstractions, we must not suppose them to be imaginary, if by imaginary be meant unreal, not objective. They are intelligibles of sensibles: abstractions which have their concretes in real objects."²¹ "These things are fictions, but they have a real existence, though not in their insulation of ideal form, for no idea exists out of the mind. These abstractions are the limits of concretes."²² So conceptions take the place of perceptions, but without any loosening of the hold on reality. Not only the empiricism of Bain, but the more recent empiricism of James and Dewey is unsatisfactory, alike in its default of any manner of accounting for the reality of universals, which admittedly enter "somehow" into experience, and in its inability to obviate the stark dualism of particular and universal, which faces its immediatism. One may very well agree with James that "all the thickness, concreteness and individuality of experience exists in the immediate and relatively unnamed stages of it,"²³ and yet hold the unsatisfactorinesses, which I have just indicated, to remain undisposed of by the empiricists or immediatists. For universals are not immediately experienced, nor has it been shown by the imme-

¹⁹ *Problems of Life and Mind*, Vol. I, p. 344.

²⁰ *Ibid.*

²¹ *Loc. cit.*, p. 420.

²² *Ibid.*

²³ *A Pluralistic Universe*, p. 280.

diatists that they can be; they are always mediate terms of thought. We do not, in intuitive thinking, have regard to the universal element apart, or in distinction, from the particular embodiment. Universals are not immediately experienced *as such*; they are developed and interpreted in the process of speculation. We have seen how we are driven to the use of symbols; the symbol is, as we know, the creature of logic; and the symbolic always lands in a logical universal.

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